

ABSTRACT OF THE DISCLOSURE

A problem arose in that when gas holes defined in a gas-introducing plate lying within a plasma etching apparatus reached more than a given size, plasma entered
5 from an etching-processing chamber to the backside (cooling plate side) of a gas-introducing plate through the gas holes.

In order to solve such a problem, there is provided an upper electrode which comprises a cooling
10 plate having a plurality of gas supply holes for supplying gas, a gas-introducing plate having gas holes for introducing the gas into a semiconductor wafer uniformly, a jig for fixing the gas-introducing plate to the cooling plate, and a sensor for detecting plasma.

15